

AMENDMENTS TO THE CLAIMS

1. (Previously presented) A network adapter for one or more access points in a local area network environment, comprising:

means for connecting said one or more access points to a wired network;

means for connecting said one or more access points to a wireless network;

means for enforcing a managed network environment, including filtering out packets to be discarded and rewriting data packets transmitted between the wired and wireless networks, wherein rewriting packets is based on policies that enable network address translation (NAT); and

means for communicating with a network control server for providing configuration information to the network adapter.

2. (Previously Presented) A network adapter as recited in claim 1, wherein said means for connecting to a wired network further comprises a wireline network interface.

3. (Previously Presented) A network adapter as recited in claim 1, wherein said means for connecting to a wireless network further comprises a wireless network interface.

4. (Previously Presented) A network adapter as recited in claim 3 wherein said wireless network interface is coupled to a wireless access point.

5. (Previously Presented) A network adapter as recited in claim 4 wherein said wireless access point further comprises an 802.11 type access point.

6. (Previously Presented) A network adapter as recited in claim 4 wherein said wireless access point further comprises a Bluetooth-type access point.

7. (Previously Presented) A network adapter as claimed in claim 3 wherein said wireless network interface is coupled to a Local Area Network (LAN) port.

8. (Canceled)

9. (Currently Amended) A network adapter as recited in claim [[8]] 1 wherein said augmented IP stack includes a Mobile IP Foreign Agent.

10. (Currently Amended) A network adapter as recited in claim [[8]] 1 wherein said augmented IP stack detects and handles packets corresponding to a plurality of network services.

11. (Previously Presented) A network adapter as recited in claim 1 wherein said means for communicating further comprises network coordination software.

12. (Previously Presented) A network adapter as recited in claim 1 wherein said network adapter includes a plurality of wireline network interfaces.

13. (Previously Presented) A network adapter as recited in claim 1 wherein said network adapter includes a plurality of wireless network interfaces.

14. (Previously Presented) A network adapter as recited in claim 1 wherein said network adapter is coupled to a switch and said switch is coupled to a plurality of short-range wireless access points.

15. (Previously Presented) A network adapter as recited in claim 14 wherein said switch is programmable to automatically forward all inbound packets from wireless access point LAN segments to a segment containing said network adapter.

16. (Previously Presented) A network adapter as recited in claim 14 wherein said switch is programmable to automatically forward all packets not originating from a LAN segment containing the network adapter and destined to an access point segment, to the LAN segment containing said network adapter.

17. (Previously Presented) A network adapter as recited in claim 14 wherein the access points or wireless clients are programmed to forward all packets to said network adapter.

18. (Previously Presented) A network adapter as recited in claim 1 wherein said network control server is not co-located with said network adapter.

19. (Previously Presented) A network adapter as recited in claim 1 wherein said network control server is co-located with a core server that provides services as mobile devices wirelessly coupled to the local area network environment physically move through the environment.

20. (Previously Presented) A network adapter as recited in claim 1 wherein said network control server is co-located with a routing coordinator that enables client data connections to be preserved as mobile devices wirelessly coupled to the local area network environment physically move through the environment.

21. (Previously Presented) A network adapter as recited in claim 1 wherein said network adapter further comprises at least one of a stand-alone personal computer (PC) and a special purpose computing machine.

22. (Previously Presented) A network adapter as recited in claim 1 wherein said network adapter further comprises software stored within said one or more access points.

23. (Previously presented) A network adapter as recited in claim 1 wherein said network control server is distributed over said wired network.

24. (Previously Presented) A network adapter as recited in claim 1 wherein said network adapter is connectable to one or more access points located on a plurality of LAN segments.

25. (Previously Presented) A network adapter as recited in claim 1 wherein said network adapter is connectable to different wireless LANs.

26. (Previously Presented) A network adapter as recited in claim 1 wherein said network adapter is co-located with at least one of a Handoff Management Point, a Home Address Masquerader and a Foreign Address Masquerader.

27. (Currently Amended) A method for providing a network adapter for one or more access points in a local area network environment, comprising the steps of:

connecting said access points to a wired network;

connecting said access points to a wireless network;

receiving packets from a wired network;

processing the received packets through an augmented IP stack configured to filter

~~enforcing a managed network environment, including filtering~~ out packets to be

discarded and ~~rewrite~~ rewriting data packets transmitted between the wired and

wireless networks, wherein rewriting packets is based on policies that enable network address translation (NAT);
forwarding the processed packets to the wireless network; and
communicating with a network control server for providing configuration information to the network adapter.

28. (Currently Amended) A method as recited in claim 27 wherein the augmented IP stack is further configured to determine ~~step of enforcing a managed network environment further comprises the steps of:~~

~~receiving packets from a wireline network;~~
~~processing said packets through an augmented IP stack configured to carry out the packet filtering and packet rewriting, including determining whether to rewrite the~~
~~received said packets; and~~
~~forwarding said packets to said wireless network.~~

29. (Currently Amended) A method as recited in claim ~~[[28]]~~ 27, wherein the step of processing said packets through ~~[[an]]~~ the augmented IP stack further comprises the step of determining whether to filter said packets.

30. (Canceled)

31. (Currently Amended) A method as recited in claim ~~[[30]]~~ 27, wherein said step of processing further comprises the steps of:

determining whether to filter said packets; and
determining whether to rewrite said packets.

32. (Original) A method as recited in claim 31, further comprising the steps of:
detecting packets corresponding to a plurality of network services via said augmented IP stack; and
handling said packets.

33. (Previously Presented) A method as recited in claim 27, further comprising the step of determining an access point currently associated with a mobile client by inspecting a media access control (MAC) address associated with packets transmitted by the mobile client.

34. (Previously Presented) A network adapter, comprising:
a wireline network interface for connecting one or more access points to a wired network;
a wireless network interface for connecting the one or more access points to a wireless network;
an augmented IP stack for enforcing a managed network environment, including filtering out packets to be discarded and rewriting data packets transmitted between the wireline and wireless network interfaces, wherein rewriting packets is based on policies that enable network address translation (NAT); and
network coordination software for communicating with a network control server for providing configuration information to the network adapter.

35. (Previously Presented) The network adapter of claim 34 wherein packet filtering is carried out in accordance with at least one of security and quality-of-service policies of the managed network environment.

36. (Canceled)

37. (Previously Presented) The network adapter of claim 34 wherein the policies further enable roaming capability.